



The Eastern Coyote in Rhode Island



The eastern coyote (*Canis latrans*) has created a great amount of controversy in Rhode Island. To some people, seeing a coyote in the wild or hearing them howl at night is a rewarding experience. To others the coyote represents a threat to game animals, pets and livestock. Some people are fearful just knowing coyotes exist in the vicinity of their homes and neighborhoods.

The coyote is probably the most successful canid in North America. The coyote is not a specialized predator but is a generalist and opportunistic predator and scavenger, consuming a wide variety of foods that includes small mammals, deer, carrion, birds, insects, fruits, berries and garbage. Additionally, they are able to thrive in a wide variety of natural and human-altered environments including deserts, grasslands, forests, agricultural land, suburbs, and urban areas.



Historic range and current range

At the time Europeans first established settlements in North America the coyote's range was likely restricted to the prairie regions of North America west of the Mississippi River from southwestern Canada to central Mexico. The dominant canine predator in northeastern North America at that time was the gray wolf (*Canis lupus*). In the southeast, the red wolf (*Canis rufus*) was the dominant canid. Throughout the 18th and 19th centuries European settlement expanded westward, and the extensive eastern forests were cleared for agriculture and timber products. A network of linear travel corridors was created as roads, bridges, and railway systems were constructed. In addition to the unprecedented alteration of habitat, there was direct persecution of large predators such as the wolves and mountain lions that had previously competed for food resources with

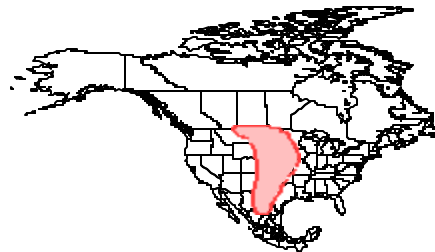


Figure 1. Probable distribution of coyote in North America prior to European settlement

coyotes. Through habitat loss and unregulated hunting, populations of white-tailed deer, the primary prey of wolves and mountain lions, were also decimated.

The range expansion of the coyote in North America is well documented. Coyotes followed settlers and prospectors westward, feeding on dead horses and livestock as well as in garbage dumps along travel routes.

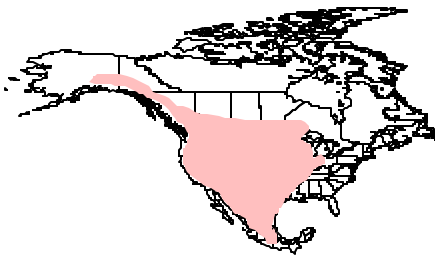


Figure 3. Approximate distribution of coyote in North America 1900

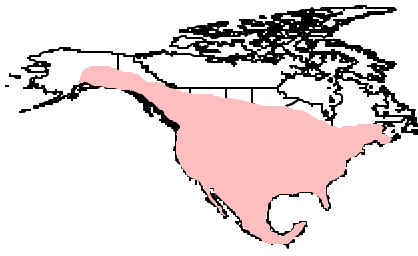


Figure 2. Approximate distribution of coyote in North America 1990

With the wolf gone from most of eastern North America and the landscape now consisting of a patchwork of agricultural and forest lands, there was an opportunity for the adaptable and generalist coyote to move east. The first eastern coyotes in New York State were documented in the 1920's. By the 1930's, coyotes had been documented in Maine, and in the 1940's Vermont (1942) and New Hampshire (1944). They were first reported in Massachusetts in 1957 and in Connecticut in 1958. In the 1968 revised edition of "The Mammals of Rhode Island" by John Cronan and Albert Brooks, the authors state: "The coyote has never occurred in Rhode Island but its range has been extending steadily eastward in recent years and at some future date it might be seen in Rhode Island." One year later, in 1969, a coyote was shot in the Touisset section of Warren. Within the next several years coyotes began to appear in other communities such as Warwick, Smithfield, Cranston, and North Kingstown. Today, coyotes can be found in all Rhode Island communities except Block Island.

Description

The coyote (*Canis latrans*) belongs to the mammalian Order *Carnivora*, a large group of mammals that are characterized by teeth designed primarily for chewing flesh. The scientific name *Canis latrans* means "barking dog"

and coyote (pronounced “ky-o-tee”) is a Spanish modification of the Aztec word “coyotl”.

The eastern coyote is predominantly brownish-gray in color, however coloration can be quite variable among individuals, with varying amounts and shades of brown, with highlights of black, the tail being straight and having a black tip. The fur is dense, long and coarse. Eastern coyotes are on average larger than western coyotes. It is likely that some interbreeding has occurred between coyotes and wolves in the past. Typical adult males generally weigh between 35 and 45 pounds with some individuals approaching or exceeding 50 pounds. Adult females weigh less, usually between 30 and 40 pounds.



Breeding and rearing of young

Female coyotes come into “heat” once per year, usually during January or February. Coyotes are monogamous and maintain pair bonds for several years but not necessarily for life. Gestation lasts for approximately 63 days. Litter size ranges between four and seven, varying due to factors such as the females age and health. Pups are born blind and helpless and generally weigh between 8 and 10 ounces. The pups eyes open at about 14 days. The mother nurses the pups for about the first two weeks after which time they are fed regurgitated food by the adults. The young begin eating solid food at around three weeks and are weaned at about seven weeks of age. The young begin to emerge from the den after about three weeks at which time they begin to follow the adults. Occasionally other individuals, usually siblings from the previous year’s litter assist the parents with rearing the pups. After weaning the den is abandoned and the pups are taught to hunt by the adults and older siblings. Pups reach adult weight at about nine months. The family stays together until the fall at which time the young coyotes may disperse. Sometimes the young will remain with adults through the following year. Coyotes den in holes dug into embankments, ledges, and dense thickets or under piles of debris, preferably in areas that are free from human disturbance. The same den may be used from year to year. Moving pups from one den to another because of disturbance or parasite infections is common.

Behavior

Coyotes are shy and secretive animals. In proximity to humans coyotes tend to be mostly nocturnal but may also be active during early morning and sunset. In areas with little or no human activity, coyotes will be active during daylight hours searching for food. When a litter of pups needs to be fed adults may have to hunt for food around the clock.

In urban and suburban environments coyotes prefer to travel through and remain in close proximity to areas with abundant hiding cover. This could include powerline rights-of-ways, urban river corridors, parks, cemeteries, and other open space areas. Taking shortcuts through suburban backyards to and from food sources is common.

An animal's home range is generally defined as that area that is used on a regular basis but not actually defended. A home range area can be flexible and can vary considerably with food availability, geography, season and other factors and can overlap the home range of other individuals. A territory is a smaller area within a home range, is defended against other individuals or groups of the same species. Home ranges for coyotes have been measured between 5 and 25 square miles. Coyote family groups or "packs" are often territorial and will defend their territory against other coyotes. They delineate territorial boundaries with markers consisting of scat and scent posts. Within a given area there may also be individuals that are transient, or do not belong to a particular pack.



Coyotes can produce two basic sounds, a bark and a howl, which they use to communicate amongst each other.

Food Habits

Coyotes are generalists and eat a wide variety of food items. Coyotes prey on a wide variety of animals including rabbits, squirrels, woodchucks, deer, mice, voles, birds, snakes, and insects. A large component of the diet consists of carrion- which are animals that may have died from natural or other causes such as starvation or auto strikes. Fruit and other plant materials are an important food component. Coyotes will eat wild and cultivated apples, grapes, blueberries and strawberries. They also eat corn when available.

Diseases

Coyotes are affected by a wide variety of parasites and diseases, including ticks, fleas, intestinal worms and heartworms. Coyotes also may be infected with canine distemper, canine parvovirus and sarcoptic mange. Coyotes, like all other mammals, are susceptible to the rabies virus; however, coyotes historically have not been a frequent wildlife host of the virus. There have been no confirmed cases of coyotes infected with rabies in Rhode Island. Sarcoptic mange is caused by a mite that burrows into the skin, creating a great deal of discomfort and often leading to a weakened condition of the animal. Animals infected with mange often have little or no hair on their tails and backs. Mange also commonly infects red foxes. Canine heartworm is commonly found in adult coyotes. In severe cases it can lead to impaired stamina and death.

Regulatory status

Coyotes are classified as protected furbearers under Rhode Island General Law 20-16-1. Through regulation, the Division of Fish and Wildlife has established a “no closed season” for coyotes. They can be taken at any time of the year by legal means. Coyote pelts must be tagged by the Division of Fish and Wildlife prior to sale or export from Rhode Island. The use of foothold traps, snares, or poison is prohibited. For complete rules and regulations regarding the hunting or taking of coyotes or other furbearers contact the Rhode Island DEM Division of Fish and Wildlife, Field Headquarters at 401-789-0281 or Division of Enforcement at 401-222-3070. Town and city ordinances may prohibit or further restrict hunting or discharge of firearms in residential and urban areas. Check with your police department for local laws.

Avoiding problems

Eliminating food sources around the home will eliminate unnecessary interactions with coyotes as well as other wild animals. Coyote attacks on humans are very rare, whereas some statistics indicate that there are between 500,000 and 1 million dog bites on humans that require medical attention each year in the United States.

Some things you should do to avoid or eliminate problems with coyotes:

- Do not leave garbage containers open or accessible to animals.
- Do not feed your pets outside. If you must, remove all uneaten food immediately.
- Never intentionally feed coyotes or other wild animals.
- Keep small pets, especially cats indoors, a coyote will not make a distinction between your house cat and any other small mammal.
- Keep your pets vaccinations and heartworm prevention up to date.
- Inform young children never to approach any wild animals.
- Protect vulnerable domestic fowl and livestock in enclosures, particularly during birthing season. Properly dispose of carcasses. Consult with the Division of Fish and Wildlife for ways to protect livestock from coyotes and other predators.
- Use loud noises such as whistles, air horns, shouting or whatever is available to discourage coyotes from taking shortcuts or frequenting backyards.
- Inform local or DEM officials of any contacts between coyotes and pets or people.

Not all coyotes have bad habits or create problems. A coyote walking down the street during the early morning or walking along the back edge of your lawn next to the adjacent woodlot is not necessarily stalking you or your children. Coyotes have been part of Rhode Island's fauna for over thirty years and are an important natural resource and component of the ecosystem. All indications are that they will continue to be part of our fauna for a long time to come. As proven in the west, campaigns to eradicate coyotes, though sometimes effective at lowering population levels for a short term, are expensive and have generally proven unsuccessful. The coyote's reproductive capacity and ability to disperse into new areas ensures that unoccupied habitats will not remain so for long. If you have questions regarding coyotes, or are having problems with coyotes, contact the RI DEM Division of Fish and Wildlife at the Great Swamp Field Headquarters at **789-0281**.



Selected references

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Coyote track image courtesy of the Northeast Furbearer Resources Technical Committee.

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